



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/623,780

09/08/2000

Keiji Fukuzawa

450101-02221

7982

20999 7590 04/17/2008
FROMMER LAWRENCE & HAUG
745 FIFTH AVENUE- 10TH FL.
NEW YORK, NY 10151

EXAMINER

RAMAN, USHA

ART UNIT

PAPER NUMBER

2623

MAIL DATE

DELIVERY MODE

04/17/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/623,780	Applicant(s) FUKUZAWA ET AL.	
	Examiner USHA RAMAN	Art Unit 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7,9-12 and 14-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7,9-12 and 14-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED OFFICE ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 29th, 2008 has been entered.

Response to Arguments

2. Applicant's arguments filed January 29th 2008 have been fully considered but they are not persuasive.

Applicant argues (see Remarks, page 12) that the DVB ETR211 and DVBA038 fail to disclose the "length of these descriptors" and further, "fail to disclose or suggest that the delivery system descriptor length is related with the transport descriptor length". Examiner respectfully disagrees. Taking a close look at the cited portions from the aforementioned documents, it can be seen that the ETR211 document discloses that the second descriptor loop shall comprise among other descriptors, delivery_system_descriptors (see 4.2.1.2 and 4.2.1.2.1). The A038 indicates that the transport descriptors length field specifies the total length in bytes of the transport stream descriptors that follow, i.e. the delivery system descriptor is a transport stream descriptor, whose length is included in the transport descriptors length. Since, the first and second delivery system descriptors are

transport stream descriptors, they are in accordance with a transport stream descriptor length by virtue of being transport stream descriptors. If applicant maintains disagreement with this position, examiner would like to request that the applicant specifically point out how or why the delivery system descriptors are not in accordance with a transport stream descriptor length.

Applicant continues to argue (see Remarks pages 12-13) that the modified system fails to teach the limitations of "wherein the service identifiers of network information that are not retransmitted are deleted and placeholder data that has the same length of the deleted service identifiers is added", stating that, "each service list descriptor has 24 bits in direct contrast with the stuffing descriptor of 8 bits". Applicant's misplaced contentions on the cited portions are clear from applicant's arguments stating that, "each occurrence of the field may be set to any value" means that the actual content expressed by the field of stuffing byte can be any value and does not mean length of the stuffing byte can be any value". The citation of "*each occurrence* of the field..." was intended to emphasize the existence of "each occurrence" of the stuffing byte, meaning there maybe a plurality of stuffing bytes in one descriptor. ETR211 further confirms examiners position, stating that, "this descriptor is allowed in any place in the SI where descriptors are allowed. It is used to stuff tables for any reason or to disable descriptors that are not valid" (see ETR211 sub-clause 4.2.7.2). It is indeed the multiple occurrence of stuffing byte that enables the stuffing descriptor to invalidate any descriptors in the SI.

Finally, applicants arguments stating that the modified system “fail to teach or suggest wherein a table containing physical information of a transmission path is contained in the broadcasting signal and is distinguished by a unique table ID” is found unpersuasive because the “table containing physical information of a transmission path” is in fact the NIT (evidenced by page 13 of the DVB A038 specification), wherein the NIT is contained in the broadcasting signal, and distinguished by a unique PID (table_id in the NIT illustrated in table 3 and table_id specified by table 2 of DVB specification).

While all of applicant’s arguments have been duly noted and found unpersuasive, the claims are recited broadly and regrettably read on the prior art of record. For the reasons stated above, the rejection is sustained.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7, 9-12 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over LaJoie (US PG Pub. 2005/0015804) in view of “DVB Document A038: Specification for service information (SI) in Digital Video Broadcasting (DVB) Systems” to DVB Project office in March 1998.

With regards to claims 7 and 12, LaJoie discloses a method of transmitting digital services received from one delivery network (satellite transmission),

demodulating the received satellite signals, editing the signal to remove streams that are not going to be re-broadcast, modulating the signals according to the cable delivery network modulation scheme and transmitting over the cable network. See [0071].

While LaJoie teaches the step of not retransmitting certain services or “unwanted” programs, LaJoie is silent on the steps of replacing network information means prior to transmitting the data to a cable delivery network and deleting the service identifiers of network information that are not retransmitted and adding placeholder data for the deleted service identifiers, the service list descriptors for services repeated in the new transmission in the cable delivery network in accordance with the TS description length.

DVB specification (A038) as set forth by the DVB project office, further incorporating the contents (see page 4) of DVB guidelines for Implementation and usage of Service Information (ETR 211), set forth transition guidelines at delivery media boundaries. The guideline discloses replacement NIT packets and therefore shows the step of network information replacement with the information for the cable transmission path. See DVB Guidelines, ETR211: clauses 4.1.1 and 5.3. Furthermore, the DVB specification discloses that the NIT comprises a `delivery_system_descriptor` for each of the delivery systems, namely a `cable_delivery_system_descriptor` and a `satellite_delivery_system_descriptor` for the cable and satellite systems respectively. See clauses 6.2.8 in DVB Specification, A038. The cable/satellite delivery system descriptors are transmitted in the second

descriptor loop of the NIT (see ETR 211, 4.2.1.2.1). The NIT also specifies transport_descriptors_length field, wherein the field specifies the, 'total length in bytes of Transport Stream descriptors that follow' (see A038, pages 14-15).

Therefore, the delivery system descriptors are set in accordance with the transport stream descriptor length set forth in the transport_descriptors_length field.

Furthermore, it is also noted that the NIT is a table indicating physical information of a transmission path, wherein the NIT is contained in the broadcasting signal (see page 13, DVB specification), and distinguished by a unique PID (as specified by table 2 of DVB specification).

The DVB specification further discloses the step of transmitting stuffing_descriptor (i.e. placeholder data) for invalidating previously coded descriptors and therefore teaches the step of replacing service identifiers using placeholder (and therefore deleting service identifiers) when the services are no longer valid (i.e. services that are not re-transmitted). See DVB A038, clause 6.2.29. The stuffing_byte is situated in a *for_loop*, clearly indicating a *repetition* of the stuffing_byte field N times, wherein "*each occurrence* of the [stuffing byte] maybe set to any value". See A038, 6.2.29. Furthermore, the descriptor_length field preceding the aforementioned *for_loop* indicates "the total number of bytes of the data portion of the descriptor following" (see A038, page 27), further supporting examiner's position that length of the stuffing descriptor can vary according to the size of the descriptors that need to be invalidated. Therefore the DVB documents teach the

limitations of adding placeholder data having the same length of the deleted service identifiers.

The ETR 211 Guideline further discloses that transmitting a service list descriptor corresponding to a transport stream identifiers, wherein the service list descriptor contains a list of services transmitted (including repeated services) in a new delivery system (see DVB Guidelines, fig. 2, 4.2.1.2.2 and DVB specification, table 62), wherein the service list descriptor is transmitted in accordance with the length of a transport stream. The ETR 211 accordingly teaches that the service list descriptors to be re-transmitted are appended to the transport stream identifier in accordance with length of the transport stream descriptor.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the principles taught set forth by the DVB specification for transition between delivery system boundaries in the system of LaJoie so that the receiver at the new delivery information can correctly identify and decode services.

In regards to claims 10 and 15, as discussed above for claims 7 and 12, the modified system comprises a cable television network as the first transmission path and a satellite broadcasting network as the second transmission path. See LaJoie [0071].

In regards to claims 9 and 14, LaJoie discloses that a satellite decoder demodulates the QPSK signals modulated from the second network transmission path and data packets. Note LaJoie [0071]. Upon receiving and decoding a transport stream, the NIT is extracted at the receiving site in order compare the

network id of a transport stream to identify the delivery network. If it is found that the network id of the received transport stream does not match with the network id of the receiver, the network id must be replaced for subsequent delivery over a second network. The extracted packets are then packetized (converted) into a compliant system standard for subsequent delivery in the second network. Furthermore, the ETR discloses that the extracted network identification information is replaced with that of the new network. Note clause 5.3.2 in page 37 of the ETR.

In regards to claims 11 and 16, the ETR discloses that a can digital receive transport streams from an arbitrary network, extract the network information to determine the delivery network id and convert it to a format compliant with the network to be delivered to, replace the network id with the information of the network to be delivered to. In the case of the modified system, the arbitrary network is any satellite network and the network to be delivered to is the cable network. The ETR further discloses that a transport stream from an arbitrary network has to have a NIT (designated by the tables listed under DVB mandatory in figure 1) identifying the actual transport stream, however it may also have NIT concerning with another transport stream (designated by tables under DVB for optional transport streams) of another network (i.e. another satellite, cable or terrestrial network). Note clause 1 in page 7 and figure 1 of ETR in page 10. When two such networks are identified in the new network, the new network replaces the network information of both the networks with the network information of the new network in the same manner as above. Note the last paragraph in page 11 of the ETR.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to USHA RAMAN whose telephone number is (571)272-7380. The examiner can normally be reached on Mon-Fri: 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (571) 272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Chris Kelley/
Supervisory Patent Examiner, Art
Unit 2623

UR